

REMARKS

Applicants respectfully request that the above-application be re-examined.

The December 1, 2003, final Office Action ("Office Action") in the above-identified application rejected Claims 1-5, 8, 10, 11, 14, 16, 18, and 33 under 35 U.S.C. § 102(b) as being fully anticipated by the teachings of U.S. Patent No. 4,849,618 (Namikawa et al.). In addition, Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Namikawa et al. taken in view of the teachings of U.S. Patent No. 5,762,377 (Chamberlain), and Claims 9, 12, 13, 15, and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the teachings of Namikawa et al. taken in view of the teachings of U.S. Patent No. 4,960,651 (Pettigrew et al.).

The Response to Arguments remarks contained in the Office Action state that the "whereby" statement at the end of Claim 1 does not define structure and, thus, ignored this statement by stating that such a statement cannot serve to distinguish the claim from the prior art, citing a 1957 decision. While applicants disagree with the conclusion set forth in this portion of the remarks and the applicability of the cited decision to this application, in order to advance the prosecution of this application, Claim 1 has been amended to positively recite that the embossing layer affects the magnetic properties of the soft-magnetic layer such that the effects are detectable externally of the security element. Applicants submit that this feature is now positively recited and cannot be ignored.

Applicants respectfully submit that for the reasons set forth below all of the claims are clearly allowable in view of the teachings of the cited references. More specifically, applicants submit that the claims recite two features that clearly distinguish the claimed subject matter from the teachings of the cited and applied references, namely, that the embossed layer affects the magnetic properties of the soft-magnetic layer such that the effects are detectable externally of the security device and that the embossed pattern produces an optical defraction effect.

More specifically, the present invention includes a soft-magnetic layer, i.e., a layer formed of soft-magnetic material. Soft-magnetic materials are useful in security systems such as retail store security systems. A label or tag may possess a security device incorporating soft-magnetic material. The soft-magnetic material may be magnetised to activate the store security system if merchandise is illegally removed from the store and demagnetised when the merchandise is purchased. Thus the use of soft-magnetic material, which can be magnetised and demagnetised as required, is an advantage of the present invention over the security element disclosed in Namikawa. While Namikawa may disclose a soft-magnetic layer, the existence of the hard magnetic layer negates the presence of the soft-magnetic layer. The hard magnetic layer

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pins the soft-magnetic layer such that the soft-magnetic layer is aligned with the orientation of the hard magnetic layer and thus the soft-magnetic layer cannot be selectively magnetised and demagnetised. Also, by its nature, the hard magnetic layer in Namikawa also cannot be magnetised and demagnetised.

The invention is also distinguished in that the magnetic properties of the soft-magnetic layer are affected by the shape of the embossment and this effect is detectable externally of the security element. This results in an effect unique to the particular embossed pattern. This effect can be used as a security feature to determine genuine articles from counterfeit articles, which incorporate an optical diffraction effect without realising the importance of the soft-magnetic layer. As a result, this effect becomes a covert security feature that is not detectable from a visible inspection of the security element. Because, in accordance with the present invention, this unique effect can be embodied in the soft-magnetic layer, the soft-magnetic layer serves a dual role. The soft-magnetic layer forms a magnetisable and demagnetisable theft prevention feature as described above as well as a genuine article determining feature.

In Namikawa, there is no disclosure that the magnetic properties of the soft-magnetic layer may be affected by the embossment. Further, in Namikawa there is no disclosure that the magnetic properties of the soft-magnetic layer may be examined for any purpose. Thus, Namikawa does not teach (1) that there might be any change in the magnetic properties of the soft-magnetic layer and (2) that these effects may be detectable externally of the security element. Namikawa therefore does not realize the benefit of the present invention, namely, the changed properties of the soft-magnetic layer caused by embossment as a security feature. While the hard magnetic layer in Namikawa is ruptured to produce a stray field, which is detectable, Namikawa does not disclose that there is any change in the magnetic properties of the hard magnetic material per se. Further, the hard magnetic material cannot serve the other dual role of acting as a theft prevention system as discussed above.

It is also important to point out that the present invention is a combination of the embossment in the shape of the optical diffraction effect and the soft-magnetic layer. The type of embossment involved in the optical diffraction is on a microscale compared to the macro scale of Namikawa. It is this micro scale that is believed to produce the change in properties of the soft-magnetic layer. Namikawa does not teach embossment on a micro scale.

Furthermore, the invention is distinguished in that the particular shape of the embossment is an optical diffraction effect. The visual effects of optical diffraction are very different to what can be achieved by the macro embossment of Namikawa. Optical diffraction effects include holographic effects.

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The only independent claim in this application, Claim 1, is clearly directed to a security element characterized by a soft-magnetic layer and the features resulting therefrom described above. More specifically, Claim 1 reads as follows:

1. A security element comprising a magnetic layer and an embossed layer, the embossed layer having an embossed pattern of a particular shape producing an optical diffraction effect, characterized in that the magnetic layer is a soft-magnetic layer wherein at least part of the soft-magnetic layer has the shape of the embossed pattern of the embossed layer, said embossed layer affecting the magnetic properties of the soft-magnetic layer such that the effects are detectable externally of the security element.

It is clear that Claim 1 is directed to a security element suitable for machine verification by detecting the magnetic properties of a soft-magnetic layer, which are determined by an underlying micro-embossing. This feature is clearly not taught or even remotely suggested by Namikawa et al. Claim 1 also recites a security element that provides for visual verification through an optical diffraction effect. The use of an optical diffraction effect is not taught or even remotely disclosed in Namikawa et al.

In view of the foregoing remarks, applicants respectfully submit that Claim 1 and all of the claims dependent therefrom, including those rejected under 35 U.S.C. § 103(a), are clearly allowable.

While the Office Action states that Claims 19-32 are withdrawn from consideration, applicants resubmit that these non-elected claims should remain in this application since, in essence, they are commensurate in scope with the subject matter recited in Claim 1 and the claims dependent therefrom.

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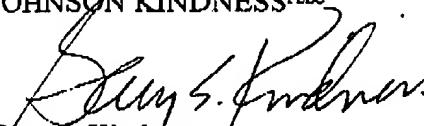
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In view of the foregoing remarks, applicants respectfully submit that all the claims in this application are clearly allowable. Consequently, early and favorable action allowing these claims and passing this application to issue is respectfully solicited.

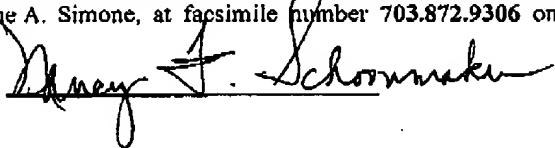
Respectfully submitted,

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I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, Group Art Unit 1772, Examiner Catherine A. Simone, at facsimile number 703.872.9306 on February 25, 2004.

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